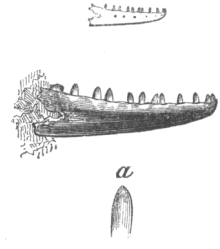
2. *Notice of some* New Reptilian Fossils *from the* Purbeck Beds *near* Swanage. By Prof. Owen, F.R.S., F.G.S.

Having received from Mr. W. R. Brodie, of Swanage, a second collection of fossils from the Purbeck beds at Durdlestone Bay for examination, I find amongst the Vertebrate specimens some Ichthyolites and two examples of *Reptilia*: the latter seem worthy of a woodcut; they are small, and may be described as follows:—

Part of the right ramus of the Lower Jaw with teeth of Saurillus obtusus, Owen. (Nat. size and magnified.)



a. One of the teeth magnified.

Specimen A, from the "dirt-bed*," no. 93 in Mr. Austen's stratigraphical list†. It indicates a Lacertian genus and species, for which I propose the name of *Saurillus obtusus*. This lizard is represented by the right dentary bone of the lower jaw (see fig.), containing 13 moderately long, conical, blunt-pointed teeth, differing in form from those of the *Nuthetes* and *Macellodus* described in a former communication‡, and from the same formation and locality.

The teeth in *Saurillus* are not so long nor so recurved as in *Nuthetes*, nor are they compressed as in that genus; and they are not broad and flat as in *Macellodus*. On the outer side of the dentary bone are six nervo-vascular foramina in a longitudinal row, relatively as numerous and large as in the *Iguanodon*, and indicating, as in that and other Saurian reptiles, the scaly covering of the jaws and the equally reptilian condition of the salivary apparatus in the little *Saurillus*. Supposing the fossil to have come from a mature individual, the size of the animal must have been equal to that of the common European lizard *Lacerta agilis*. It was most probably insectivorous. The specific name refers to the obtuse termination of the muzzle, as indicated by the form of the fore part of the jaw, and also to the blunt apices of the conical teeth. See figure.

Specimen B, from the same bed, is a portion of jaw with two long, slender, recurved, pointed teeth, of an almost circular transverse section, with two opposite low but sharp ridges along the enamelled crown, like those in Teleosaurian teeth. If this fragment formed part of a full-grown animal, it indicates a species of Saurian, probably Lacertian, reptile, distinct from any of the before-defined kinds from the Purbecks. The jaw-bone is, however, too much mutilated at the base of the teeth to determine their precise mode of attachment. The teeth are black, with the enamel unusually lustrous.

A portion of a jaw of a somewhat larger reptile, with empty sockets for simple teeth like those of a Crocodile, is imbedded in the same

* See also Quart. Journ. Geol. Soc. No. 40, p. 423 and p. 482.
† Guide to the Geology of Purbeck. 8vo. 1852.
‡ Quart. Journ. Geol. Soc. June 1854, no. 40, pp. 420–426, figs. 1–8.

slab. Neither of these indications call for a specific name; future explorations by their discoverer may bring to light more evidence of the animal so indicated. Already much valuable knowledge of the Vertebrate fossils of the Purbecks has been gained by the indefatigable researches and acute discernment of Mr. Brodie.

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3. *Notice of a* NEW SPECIES *of an* EXTINCT GENUS *of* DIBRANCHIATE CEPHALOPOD (*Coccoteuthis latipinnis*) *from the* UPPER OOLITIC SHALES *at* KIMMERIDGE. By Prof. OWEN, F.R.S., F.G.S. &c.

[Plate VII.]

THE subject of the present notice is the internal shell, 'sepium' or cuttle-bone of a large Dibranchiate Cephalopod, combining some of the characters of that of the Cuttle (*Sepia*) with that of the Squid (*Loligo, Sepioteuthis*, &c.). The specimen was discovered by W. R. Brodie, Esq., at low-water-mark, in the shales at Kimmeridge, in a layer of which it lies imbedded, with the dorsal surface exposed. It is 1 foot in length, although the hinder pointed end is broken away, and $5\frac{1}{2}$ inches in breadth at its broadest part, about one-third from the hinder end; proportions which indicate the entire animal yielding it to have been about a yard in length from the end of the outstretched arms (see Pl. VII.). The sepium is slightly convex along the middle of the dorsal surface, which is the one exposed, and this convexity is beset with hard calcareous granules; the largest, occupying the middle of the convexity, are about half a line in diameter, and gradually diminish in size to the anterior border, and to within two inches and a half of the fractured posterior end. The substance of the plate which sustains these granules is calcified, but the calcareous layer is very thin, about one-third of a line, and it coats a black internal horny layer, which extends to the lateral margins, where the calcified outer layer gradually changes into a horny one. This albuminous or horny part of the body is much more extensive than in the Cuttle-bone, and differs more materially by being continued through the centre of the sepium. A little behind the rounded anterior border of the sepium, where the finely granular calcified layer is broadest, the horny marginal plate becomes half an inch in breadth, gradually increasing for nearly two-thirds the extent of the shell to a breadth of one inch and a half, when the margin suddenly expands and sweeps, with a convex curve, backwards to the hinder end of the shell. These posterior expansions have doubtless penetrated corresponding expansions of the mantle, forming the hinder fins of the Cephalopod; a part of the exposed shale, which was in contact with the under or ventral surface of one of these expansions, shows transverse fibrous markings indicative of former muscular attachments of the part in question. The anterior border of the shell is broad and rounded; the posterior end appears to have terminated more acutely, but this characteristic part of the shell is unfortunately wanting.

There is an indication at a fractured part near the middle line of